

laser is used in a defocused mode, usually from 2 to 4 W and at a size of between 2 and 4 mm in diameter. One or more passes with the laser are made until the entire lower lip has a mottled white-pink appearance. This procedure is done as much by feel and experience as anything else. Small areas that retain a rough surface can be precisely vaporized to attain a uniform appearance. There is no blood loss and minimal early postoperative pain because nerves and blood vessels are sealed by the laser. Postoperative care consists of peroxide compresses and antibiotic ointment applied several times a day until the wound is fully epithelialized in 7 to 14 days.

Before laser therapy is undertaken, a biopsy should be taken from any ulcerated or indurated (firm) areas to exclude invasive squamous cell carcinoma. Clinical or pathologic examination may also be required to exclude lichen planus, contact dermatitis, and discoid lupus erythematosus before such treatment.

Carbon dioxide laser treatment of actinic cheilitis is an efficient, office-based procedure that results in minimal scarring and a lower recurrence rate than other destructive therapies. It offers cost savings and fewer complications than vermilionectomy and mucosal advancement. The removal of premalignant changes of the lip can be expected to reduce the occurrence of potentially metastasizing labial squamous cell carcinomas.

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Treatment of Scabies and Similar Infestations

SCABIES CONTINUES TO BE a source of substantial discomfort in our society. The typical infestation is acquired by direct contact with the *Sarcoptes scabiei*. The female mite burrows and lays her eggs in thin keratinized epithelium. Intense nocturnal pruritus develops in most patients about three weeks after contracting the initial infestation, due to an allergic or irritant response to the mite's secretions. Classic areas of distribution for the linear burrows include the web spaces of the fingers, toes, axillae, groin, and waist. A vigorous immunologic reaction to the mite may cause widespread skin eruption, with few typical burrows. In addition, young children and elderly patients may have involvement of the palms, soles, scalp, and face. Immunocompromised patients, especially those infected with the human immunodeficiency virus, are more susceptible and may even have Norwegian scabies marked by hyperkeratotic lesions and numerous mites.

Skin scraping is the only consistent means of detecting these mites and evaluating treatment. Any unexplained pruritic skin lesions should be scraped and examined by potassium hydroxide wet mount or with mineral oil under a microscope to look for the mite, fecal debris, and eggs contained in the burrow. In rare cases, a biopsy is required to establish an accurate diagnosis, especially for Norwegian scabies.

The following important principles are used in treating patients with scabies:

- Prescribe a limited amount of a suitable medication;
- Avoid overtreatment;
- Treat the whole body from neck to toes. In infants and debilitated, bedridden patients, the head and face also require treatment;
- All household contacts (and frequent visitors) need to be treated simultaneously;
- Give detailed verbal and written instructions;
- Patient should launder underclothing and bedding after completion of treatment and not use again for three days;
- Do a follow-up inspection at one and four weeks;
- Always recheck and rescrabe patients if any lesions persist; and
- Caution patients that no matter what treatment is provided, the itching will commonly persist for several weeks after adequate treatment.

Lindane (1% γ -benzene hexachloride [Kwell]) has been until recently the standard scabicide in the US because of its efficacy and cosmetic acceptability. Lindane displays some toxicity, which may include serious neurotoxicity. Although most reported cases have involved overexposure or mishandling, risks of such events must be considered when the drug is provided. There have also been reports of resistance to lindane in California, which has prompted the California Department of Health to recommend alternative therapies.

Permethrin 5% cream has recently been introduced as a highly effective and novel scabicide, that may largely replace lindane for the treatment of scabies. Permethrin is a photostable synthetic pyrethroid with potent insecticidal activity and low mammalian toxicity. The 5% permethrin cream has been used successfully in heavily infested communities in which scabies had been endemic. Permethrin cream has a lower potential for neurotoxicity and may be preferable for the treatment of scabies, particularly in young children. Because controlled studies are lacking in children younger than 2 months and pregnant women, permethrin is still not recommended for these patients. The major disadvantage of this drug is its cost, being 10 to 12 times as expensive as lindane.

Other scabicides include crotamiton (Eurax), which is not very effective but has an antipruritic effect. Sulfur (3% to 6% in petrolatum or cetaphil lotion) is used primarily in pregnant women and young infants in whom lindane and permethrin are not safe.

Human contact with other species of scabies mite, such as *Sarcoptes scabiei* variant *canis*, the cause of canine sarcoptic mange, may cause pruritic papules where the mite bites, but the mite will not be able to burrow and set up an infestation similar to human scabies. Thus, treatment of the pet is essential, and a scabicide for the human friend is not indicated. Topical antipruritics and antihistamines will help control itching.

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